

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today as not written for publication in a law journal and is not binding precedent of the Board.

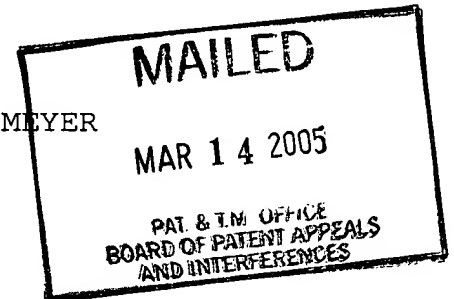
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HELMUT MANGOLD, JURGEN MEYER
and GERRIT SCHNEIDER

Appeal No. 2005-0085
Application: 09/632,208

ON BRIEF



Before GARRIS, PAK, and DELMENDO, Administrative Patent Judges.
PAK, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1 through 8, 23 and 24. Claims 9 through 14, the claims remaining in the above-identified application, stand withdrawn from consideration by the examiner as being directed to a non-elected invention.

APPEALED SUBJECT MATTER

The subject matter on appeal is directed to "sintered materials, especially sintered glasses..." See the specification, page 1, line 9. Details of the appealed subject matter are provided in illustrative claim 1 which is reproduced below:

1. A sintered material, produced by means of a forming or compacting process, optionally a subsequent cleaning step and a subsequent sintering process, comprising as a pre-sintering composition:

a) pyrogenically produced silicon dioxide which has been compacted to granulates having a tamped density of from 150 g/l to 800 g/l, a granulate particle size of from 10 to 800 μm and a BET surface area of from 10 to 500 m^2/g , or

b) pyrogenically produced silicon dioxide having the following physico-chemical data:

mean particle diameter: from 25 to 120 μm ,

BET surface area: from 40 to 400 m^2/g ,

pore volume: from 0.5 to 2.5 ml/g ,

pore distribution: no pores < 5 nm, only meso- and macro-pores are present,

pH value: from 3.6 to 8.5,

tamped density: from 220 to 700 g/l.

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PRIOR ART

The examiner relies on the following prior art references:

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|--------------------------------|--------------|--|
| Kamo et al. (Kamo) | 5,585,173 | Dec. 17, 1996 |
| Koppler et al. (Koppler) | 5,979,186 | Nov. 9, 1999 |
| Sayce et al. (Sayce) | 5,985,779 | Nov. 16, 1999 (Filed Aug. 13, 1998) |
| Loxley et al. (Loxley '304) | 6,012,304 | Jan. 11, 2000 (Filed Feb. 22, 1997) |
| Bhandarkar et al. (Bhandarkar) | 6,209,357 B1 | Apr. 3, 2001 (Filed Mar. 29, 1999) |
| Loxley et al. (Loxley '587) | 6,355,587 B1 | Mar. 12, 2002 (Filed Aug. 18, 1997) |

REJECTION

Claims 1 through 8, 23 and 24 stand rejected under 35 U.S.C. § 102(a, b or e) as anticipated by or, in the alternative under 35 U.S.C. § 103 as unpatentable over the disclosure of Kamo, Koppler, Sayce, Loxely '304, Loxely '587 or Bhandarkar.¹

¹ The examiner has withdrawn the rejection of claim 8 under 35 U.S.C. § 112, second paragraph, set forth in the final Office action dated August 28, 2002. See the Answer, page 3.

OPINION

We have carefully reviewed the claims, specification and prior art, including all of the evidence and the arguments advanced by both the examiner and the appellants in support of their respective positions. This review has led us to conclude that the examiner's Section 102/103 rejections are well founded. Accordingly, we will sustain the examiner's Section 102/103 rejections for the reasons set forth in the Answer and below.²

The claims on appeal are directed to sintered materials, i.e., sintered glasses. The claimed sintered glasses are defined by process limitations defining, *inter alia*, starting materials which are subjected to unknown process conditions and steps³. See, e.g., claim 1. As the claims on appeal are directed to sintered glass products, the patentability of the claimed invention is determined based on the sintered products themselves, rather than processes for making them. See *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) ("If the product in a product-by-process

²We will address the claims on appeal separately to the extent that they have been argued separately in the Brief.

³By virtue of using "comprising" in the claims on appeal, the appellants do not preclude steps, conditions or ingredients not recited in the claims on appeal. *In re Baxter*, 656 F.2d 679, 686-87, 210 USPQ 795, 802-03 (CCPA 1981).

claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process.").

With this in mind, we turn to the prior art references relied upon by the examiner. We find that Koppler, for example, discloses forming bubble-free sintered glass preforms prepared from a high purity granular mass having a solids content of a dispersion within the range of 65 wt percent to 80 wt percent, wherein the granules have a mean particle size of up to approximately 1 mm and have a B.E.T. surface area of 40 m²/g to 60 m²/g with almost no pores. Compare Koppler, column 1, lines 5-11, column 2; lines 3-13, column 3, lines 1-6, column 6, lines 18-32 and 59-67, with the claims on appeal. According to Koppler(column 6, lines 59-64), the granular material is "treated at sinter temperatures of around 1350°C to 1450°C." Thus, we determine that Koppler not only teaches sintered glasses identical to or slightly different from those covered by the claims on appeal, but also teaches a process for making sintered glasses, which is substantially similar to those covered by the claims on appeal.

Similarly, we find that Loxley '304 and '587 exemplify forming sintered materials from a high purity fused quartz slurry containing particles having an average particle size of about 5 to

about 7 microns, a solids content of 82 to 84 % by weight, and an adjusted pH of about 7.5 prepared by wet milling (conventional ball mill). See Loxley '304, column 24, lines 40-50 and Loxley '587, column 24, lines 55-65. According to Loxley '304, column 24, line 51 to column 25, line 45 and Loxley '587, column 24, line 66 to column 25, line 51, this slurry is used to make a preform or a cup-shaped silica body and is gradually heated to a sintering temperature of 1750°C. Thus, we determine that Loxley '304 and '587 not only teach sintered glass bodies identical to or slightly different from those covered by the claims on appeal, but also teach a process for making sintered glass bodies, which is substantially similar to those covered by the claims on appeal.

Having determined that the examiner has demonstrated, by preponderance of evidence, that the claimed and prior art sintered products are either identical or slightly different, we turn to the appellants' arguments and evidence to determine whether the claimed process limitations, including starting materials employed therein, would have rendered the claimed sintered products patentably different from those described in the above prior art references. As stated in *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972),

when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith.

That is to say, "[w]here, as here, the claimed and prior art products are identical or substantially identical or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product." *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977).

The appellants argue that the process limitations in the claims on appeal are not taught by any of the prior art references relied upon by the examiner. See the Brief, pages 9-15. The appellants, however, do not argue that the claimed process limitations, including the starting material employed therein⁴,

⁴Although the appellants argue that unique properties of the claimed starting materials are not taught by the applied prior art references, the claims on appeal do not require that such properties be maintained during the formation of the claimed sintered products. Indeed, as indicated *infra*, the appellants acknowledge that the claimed sintered products are identical to those described in the prior art references.

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produce sintered products patentably distinguishable from those described in the prior art references. *Id.* Rather, the appellants acknowledge that the claimed sintered materials are identical to those described in the prior art references. See the appellants' claim 8 and the specification, page 5, lines 20-24. Specifically, the appellants state at page 5, lines 20-24, of the specification that the claimed processes provide

glasses in which the properties of the glasses sintered or melted from corresponding very fine powder particles correspond to the properties of a glass having an identical chemical composition that has been produced via a conventional melting process without using the mentioned granulates. The production of such sintered glasses requires markedly lower sintering temperatures as compared with the melting temperature which is necessary to produce a glass having an identical composition with a conventional melting process.

Accordingly, we affirm the examiner's decision rejecting the claims on appeal under 35 U.S.C. § 102 or § 103.


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No time period for taking any subsequent action in connection
with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED



BRADLEY R. GARRIS)
Administrative Patent Judge)



CHUNG K. PAK)
Administrative Patent Judge)

BOARD OF PATENT
APPEALS AND
INTERFERENCES



ROMULO H. DELMENDO)
Administrative Patent Judge)

CKP:dal

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